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14998.280

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : Yuu Ishii et al.  
Serial No. : 09/929,934  
Filed : August 15, 2001  
For : OPTICAL FIBER GRATING, OPTICAL FIBER  
GRATING MANUFACTURING METHOD AND  
OPTICAL FIBER GRATING MANUFACTURING  
APPARATUS  
Art Unit : 2882  
Examiner : R. H. Kim

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August 29, 2003

Mail Stop Fee Amendment/1-Month Fee  
Assistant Commissioner for Patents  
United States Patent and Trademark Office  
Washington, D.C. 20231

**AMENDMENT & RESPONSE**

Sir:

The following Amendment & Response is responsive to the Office Action dated May 21, 2003 for the above-identified patent application, a three (3) month response for which was set for August 21, 2003. This Amendment and Response is accompanied by a Petition for Extension of Time, extending the response date up to and

including September 21, 2003. Accordingly this Amendment and Response is timely filed.

In response to the Office Action of May 21, 2003, kindly amend the application as follows:

**IN THE CLAIMS:**

Please amend claim 1 as follows

-- 1. (Twice Amended) A manufacturing method for an optical fiber grating comprising the steps of:

loading hydrogen in a material optical fiber for forming the optical fiber grating in order to increasing the photosensitivity of the optical fiber when necessary;

forming a grating part having a periodic refractive index distribution by irradiating an optical fiber along the longitudinal direction with ultraviolet light at a predetermined period and carrying out dehydrogenation when necessary;

carrying out at least once uniform ultraviolet irradiation processing that irradiates the grating part as a whole with ultraviolet light;

carrying out at least once heat trimming processing that uniformly heats the grating part as a whole at a predetermined temperature and time; and